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Goat Anti-NOVA1 Antibody

Peptide-affinity purified goat antibody
Catalog # AF1740a

Specification

Goat Anti-NOVA1 Antibody - Product Information

Application	**IHC, WB**
Primary Accession	P51513
Other Accession	NP_006482, 4857
Reactivity	**Human**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**51727**

Goat Anti-NOVA1 Antibody - Additional Information

Gene ID 4857

Other Names
RNA-binding protein Nova-1, Neuro-oncological ventral antigen 1, Onconeural ventral antigen 1, Paraneoplastic Ri antigen, Ventral neuron-specific protein 1, NOVA1

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-NOVA1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-NOVA1 Antibody - Protein Information

Name NOVA1 (HGNC:7886)

Function
Functions to regulate alternative splicing in neurons by binding pre-mRNA in a sequence-specific manner to activate exon inclusion or exclusion. It binds specifically to the sequences 5'-YCAY- 3' and regulates splicing in only a subset of regulated exons (PubMed:10811881). Binding to an exonic 5'-YCAY-3' cluster changes the protein complexes assembled on pre-mRNA, blocking U1 snRNP binding and exon inclusion, whereas binding to an intronic 5'-YCAY-3' cluster enhances

spliceosome assembly and exon inclusion. Binding to 5'-YCAY-3' clusters results in a local and asymmetric action to regulate spliceosome assembly and alternative splicing in neurons. Binding to an exonic 5'-YCAY-3' cluster changed the protein complexes assembled on pre-mRNA, blocking U1 snRNP (small nuclear ribonucleoprotein) binding and exon inclusion, whereas binding to an intronic 5'-YCAY-3' cluster enhanced spliceosome assembly and exon inclusion. With NOVA1, they perform unique biological functions in different brain areas and cell types. Autoregulates its own expression by acting as a splicing repressor. Acts to activate the inclusion of exon E3A in the glycine receptor alpha-2 chain and of exon E9 in gamma-aminobutyric-acid receptor gamma-2 subunit via a distal downstream UCAU-rich intronic splicing enhancer. Acts to regulate a novel glycine receptor alpha-2 chain splice variant (alpha-2N) in developing spinal cord (By similarity).

Cellular Location
Nucleus {ECO:0000250|UniProtKB:Q9JKN6}.

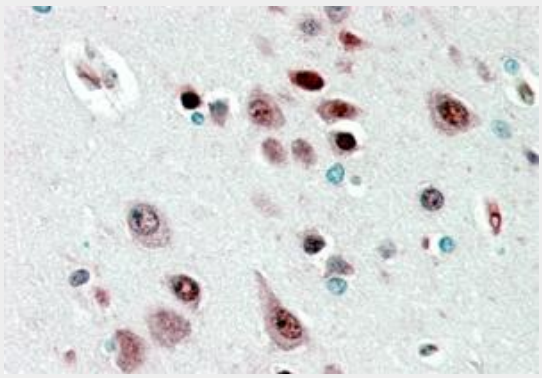
Tissue Location
Expressed in cerebellum, brain stem, hippocampus, and frontal cortex.

Goat Anti-NOVA1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-NOVA1 Antibody - Images



AF1740a (2.5 µg/ml) staining of paraffin embedded Human Cerebral Cortex. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

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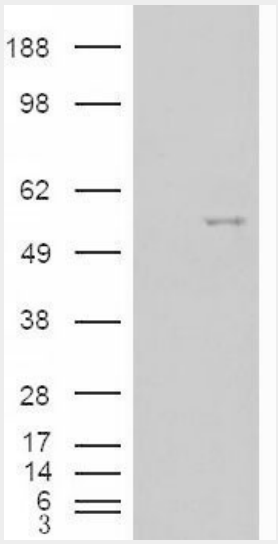
AF1740a (0.01 µg/ml) staining of Human Breast Cancer lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



HEK293 overexpressing NOVA1 (RC210407) and probed with AF1740a (mock transfection in first lane), tested by Origene.

Goat Anti-NOVA1 Antibody - Background

This gene encodes a neuron-specific RNA-binding protein, a member of the Nova family of paraneoplastic disease antigens, that is recognized and inhibited by paraneoplastic antibodies. These antibodies are found in the sera of patients with paraneoplastic opsoclonus-ataxia, breast cancer, and small cell lung cancer. Alternatively spliced transcripts encoding distinct isoforms have been described.

Goat Anti-NOVA1 Antibody - References

Genome-wide association study of antipsychotic-induced parkinsonism severity among schizophrenia patients. Alkelai A, et al. Psychopharmacology (Berl), 2009 Oct. PMID 19680635.
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Conduct disorder and ADHD: evaluation of conduct problems as a categorical and quantitative trait in the international multicentre ADHD genetics study. Anney RJ, et al. Am J Med Genet B Neuropsychiatr Genet, 2008 Dec 5. PMID 18951430.
Paraneoplastic antibody during follow-up of a patient with anti-Ri-associated paraneoplastic neurological syndrome. Stich O, et al. Acta Neurol Scand, 2009 May. PMID 18822086.
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